

ORIGINAL

Before the
FEDERAL COMMUNICATIONS COMMISSION
 Washington, DC 20554

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In re Petition of)

SAINT JOHN'S UNIVERSITY)

 For Amendment of §73.202(b))
 Table of FM Allotments)
 to Add Channel *260A at)
 Collegeville, Minnesota)

RM- _____

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

MM Docket No. _____

To: Chief, Allocations Branch,
 Policy and Rules Division, Mass Media Bureau

PETITION FOR RULEMAKING

Saint John's University, ("Saint John's" or "University"), by its attorneys and pursuant to Section 1.401 of the Commission's Rules, hereby petitions for rulemaking to amend the Commission's Table of FM Allotments (Section 73.202(b) of the Rules) to add Channel *260A at Collegeville, Minnesota, and to reserve the channel for noncommercial educational use.¹

As detailed in the attached engineering analysis prepared by Doug Vernier, Channel *260A may be allocated consistent with the FCC's spacing requirements as provided in Section 73.207 of the Rules.

¹ Because Saint John's proposes that Channel 260A be reserved for noncommercial educational use, this petition for allocation of a new FM channel is not affected by the "freeze" policy announced by the Commission in Public Notice FCC 94-41, released February 25, 1994, and may be processed in due course.

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Collegeville, Minnesota, is a community of 1,624 people and is recognized by the United States Census Bureau.

Therefore, Collegeville may serve as the city of license.

Saint John's proposes to operate a noncommercial station for the benefit of the student body and faculty of the University and its sister institution, the College of Saint Benedict.² Both Saint John's and the College of Saint Benedict offer a B.A. degree and a minor in communications. A copy of the curriculum is attached. Saint John's anticipates that the proposed facility could become an integral part of its media instruction.

Although Channel 260A is not in the reserved portion of the FM band, Saint John's requests that the channel be dedicated for noncommercial educational use. No channels on the reserved portion of the FM band would permit Saint John's to provide the wide area educational service that it envisions. Because of Collegeville's proximity to other noncommercial stations, only one channel in the reserved band, Channel 219, could be allocated to Collegeville consistent with Section 72.207 of the Rules.³ However, any

² Saint John's undergraduate enrollment is 1,763, with an additional 96 students pursuing a graduate degree in theology. Saint John's also has over 500 faculty and staff (including personnel associated with an affiliated monastery). The College of Saint Benedict has an enrollment of 1,767, and a total of 345 staff and faculty.

³ All other reserved channels are unavailable because of the need to protect nearby noncommercial educational

(continued...)

Channel 219 facility must be located 9.1 kilometers west of Collegeville to protect KCFB(FM), St. Cloud, Minnesota. It could operate with only 100 watts from an antenna height above average terrain of 100 meters. This facility could not provide a city grade signal that encompasses the entire community of Collegeville. As a result, the facility would provide even worse service to Saint John's primary community, its student body and faculty.⁴ Thus, reservation of Channel *260A is the only practical way to provide a new noncommercial educational service to the University's community.⁵

If the Commission assigns Channel *260A to Collegeville, Minnesota, Saint John's represents that it intends to submit an application for authority to construct and operate the new

³(...continued)
stations KVSC(FM), St. Cloud, MN; KNSR(FM), Collegeville, MN; and KSJR-FM, Collegeville, MN.

⁴ The engineering study conducted on behalf of Saint John's determined that use of a directional antenna with increased power in the direction of the university could not improve service to Saint John's. A station operating on Channel 219 would have to protect KCFB.

⁵ In addition, Saint Johns notes that reservation of Channel 260A as a noncommercial channel would further the public interest by ensuring that the scarce financial resources available to a not-for-profit educational entity, such as Saint John's University, would be devoted directly to improving radio service rather than diverted to cover the cost of a protracted comparative hearing against commercial entities. Further, in the event the proposed allocation is not reserved for noncommercial educational use, the Commission's new "freeze" policy would delay indefinitely the opportunity to introduce a valuable new radio service to the public.

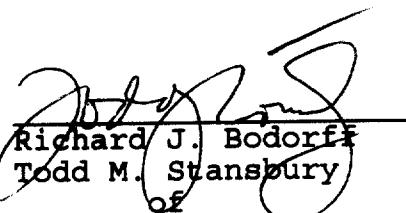
station. If the University's application is successful, Saint John's intends promptly to construct the facility.

On the basis of the foregoing, Saint John's respectfully requests the Commission to amend the Table of FM Allotments by adding Channel *260A to Collegeville, Minnesota.

Respectfully submitted,

SAINT JOHN'S UNIVERSITY

By:


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(202) 429-7000

Its Attorneys

April 22, 1994

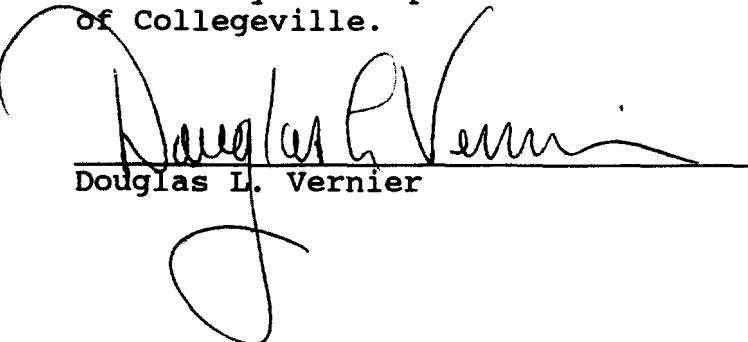


Engineering Statement:

April 1, 1994

This confirms that we have performed a non-commercial educational frequency search using coordinates at Collegeville, Minnesota. The frequency search determined that there are no channels available from Collegeville coordinates. We continued the study to determine the closest available site. The only channel which could be used in the area is channel 219, 91.7 MHz. The maximum power for the identified site and channel is .1 kW (100 watts) from an antenna height above average terrain of 100 meters. A station on this channel, must protect KCFB in St. Cloud from interference. Therefore, the NCE facility must be located to the west of Collegeville by a minimum of 9.1 kilometers. Even if the ideal site could be found for such a facility at the available combination of power and antenna height such a facility would not be able to provide a city grade signal which encompasses the entire city of Collegeville. Operating with additional power by the use of a directional antenna would not provide a better signal toward Collegeville due to the requirement to protect KCFB.

A search of the commercial spectrum determined that channel 260 could be allocated to Collegeville with a site restriction of 10 kilometers to the south, south east of the city. A station operating from such a site could transmit a total of six kilowatts from an antenna height of 100 meters above average terrain. Such a facility would provide a 70 dBu city signal to the entire city of Collegeville.


Douglas L. Vernier

Statement of qualifications of the preparer:

I, Doug Vernier, declare that I have studied engineering at the University of Michigan and received degrees from the University in Broadcast Telecommunications; that I have been active in broadcast consulting for over 20 years;

That, I am certified as a Professional Broadcast Engineer # 50258 by the Society of Broadcast Engineers, Indianapolis, Indiana.

That, I have held a Federal Communications Commission, First Class Radiotelephone License continually since 1964. In 1985, this license was reissued by the Commission as a lifetime General Radiotelephone license no. PG-16-16464;

That, my qualifications are a matter of record with the Federal Communications Commission;

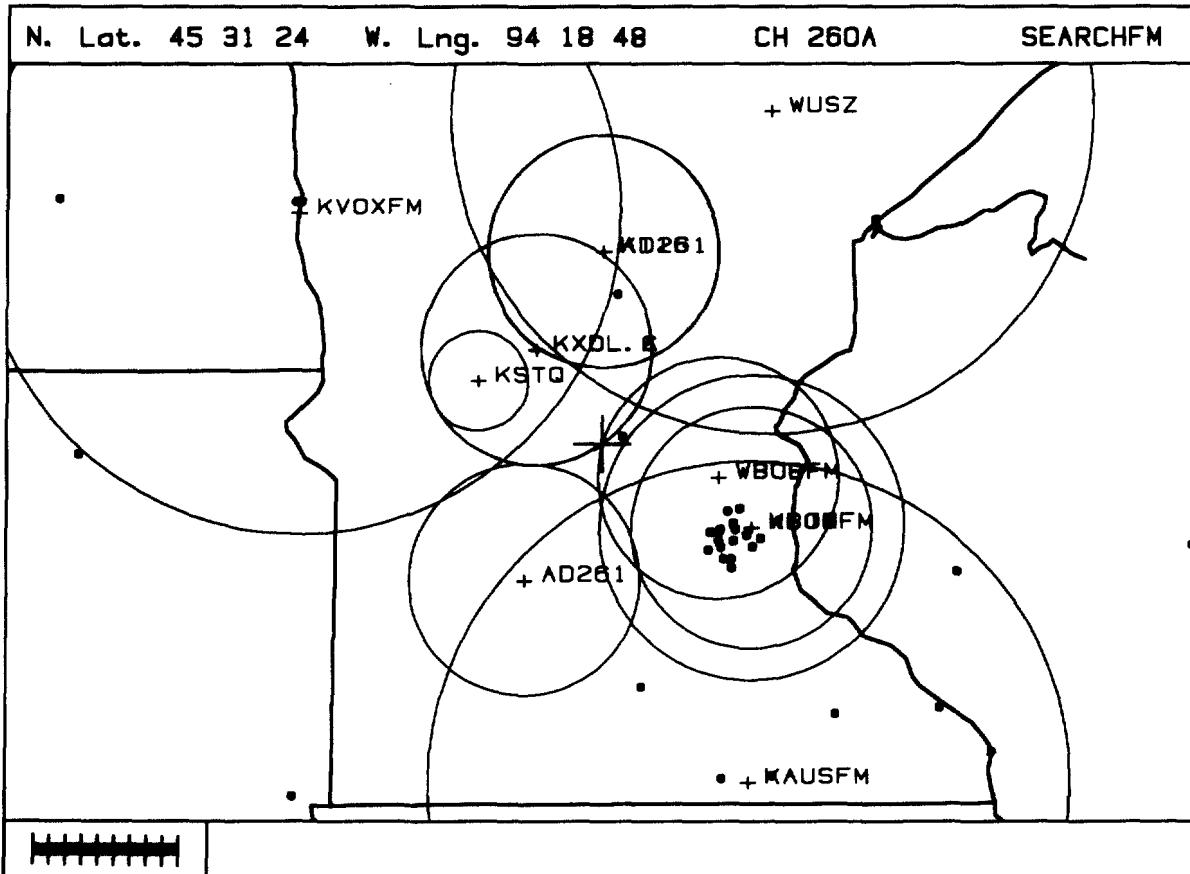
That, I have been retained by Minnesota Public Radio of Saint Paul, Minnesota to prepare the attached engineering statement and the technical exhibits appended hereto;

That, I do swear that the technical information contained in same and the facts stated therein are true of my knowledge.



Douglas L. Vernier

April 1, 1994



Service to Collegeville, Minnesota

Call	CH#	Location	O-KM	Azi	FCC	Margin	
KXDL.A	259A	Browerville	MN	72.00	324.9	72.0	0.00
WB08FM	262C1	Minneapolis	MN	75.10	106.0	75.0	0.10
KXDL.C	259A	Browerville	MN	72.13	324.9	72.0	0.13
KSJN	258C	Minneapolis	MN	106.66	119.0	95.0	11.66
AD261	261A	Olivia	MN	97.29	209.9	72.0	25.29
KAUSFM	260C1	Austin	MN	229.87	156.4	200.0	29.87
WUSZ	260C1	Virginia	MN	231.38	26.8	200.0	31.38
WB08FM	262C1	Minneapolis	MN	106.66	119.0	75.0	31.66
KVOXFM	260C1	Moorhead	MN	237.91	307.3	200.0	37.91
KTIG	261A	Pequot Lakes	MN	119.85	359.9	72.0	47.85
AD261	261A	Pequot Lakes	MN	120.00	0.2	72.0	48.00
KSTQ	257A	Alexandria	MN	87.22	297.0	31.0	56.22

11-13-1993

D. VERNIER/ CONSULTANT

319 266-8402

CH# 219A - 91.7 MHz

Available site for channel 219 service to Collegeville

INTERFERENCE CHECKS WITH TBA, COLLEGEVILLE, MN at N. LAT. 45 36 00 W. LNG. 94 28 32

PWR = .1 kW H.A.A.T. = 100 M C.O.R. = 448 M AMSL

Protected F(50-50) 60 dBu = 10.35 km

F(50-10) 40 dBu = 34.38 54 dBu = 14.65 80 dBu = 3.15 100 dBu = .71

F(50-10) 37 dBu = 41.25 51 dBu = 17.17 77 dBu = 3.73 97 dBu = 1

F(50-10) 34 dBu = 49.37 48 dBu = 21.87 74 dBu = 4.57 94 dBu = 1.42

CH#	CALL	TYPE	* IN *	* OUT *	BEARING	DISTANCE	LAT.	PWR(kW)	INT(km)	PRO(km)
CITY		STATE	LICENSEE		<---		LNG.	HAAT(M)	COR(M)	FILE #
216C	KNOWFM	LI CN	99.0	42.8	119.7	120.61 km	45 03 44	100.00	11.28	77.10
Minneapolis-St. Paul		MN	Minnesota Public Radio, Inc.	299.7	74.94 Mi	93 08 21		365.2*	631	BLED1154
218A	KCFB *	LI CN	0.5	-0.0	90.4	25.16 km	45 35 54	0.80	14.01	10.05
St. Cloud		MN	Fellowship Broadcasting Co.	270.4	15.63 Mi	94 09 11		33.2*	357	BLED910822KA
> Reference HAAT at 90.4 degrees = 106.8 M, Pwr.= .1 kW, Pro. contour = 10.64 km, Int. contour = 15.12 km										
219C1	KAXE	LI CN	37.4	109.1	23.5	200.60 km	47 15 17	100.00	152.87	57.16
Grand Rapids		MN	Northern Community Radio	203.5	124.65 Mi	93 26 03		140.0	546	BLED1533
220C3	AP220 *	AP CN	6.6	23.7	206.9	73.39 km	45 00 40	25.00	56.95	35.68
Willmar		MN	Christian Heritage Broadca	26.9	45.60 Mi	94 53 56		84.1*	445	BPED930804MA
> Reference HAAT at 206.9 degrees = 91 M, Pwr.= .1 kW, Pro. contour = 9.82 km, Int. contour = 13.97 km										
221A	WYRQ	LI CN	31.0 R	10.2 M	19.7	41.23 km	45 56 57	3.00	7.23	22.77
Little Falls		MN	Schiel Broadcasting, Inc.	199.7	25.62 Mi	94 17 48		91.0	431	BLH800516AF
222C3	KXRAFM	LI CN	42.0 R	42.0 M	296.1	83.96 km	45 55 55	13.50	3.91	38.61
Alexandria		MN	Paradis Broadcasting of Al	116.1	52.17 Mi	95 26 42		136.0	561	BLH900918KB
i.f. RELATIONSHIPS:										
273C1	KQIC	LI CN	22.0 R	43.6 M	226.6	65.56 km	45 11 40	100.00	9.35	68.49
Willmar		MN	Lakeland Broadcasting Co.	46.6	40.74 Mi	95 05 01		253.0	609	BLH810522AG

* Uses actual antenna radial HAAT and power toward reference

HOW TO READ THE FM COMPUTER PRINT-OUT

The computer print-out should be self-explanatory for the most part. The parameters of the station being checked, (reference station) are printed in the heading. The 60 dBu protected contour is predicted from the Commission's F(50-50) table, while the 40, 54, 80 and 100 dBu contours are interference contours derived from the Commission's F(50-10) table. Contour distances are in kilometers and are predicted using spline interpolation from data points identical to those published in Report No. RS 76-01 by Gary C. Kalagian. Critical contour distances are determined using the Commission's TVFMINT FORTRAN subroutine. When interference contour distances are less than 16 kilometers the F(50-50) tables are used. If signal contour distances are less than 1.6 km the free-space equation is used.

The column listed "* IN *" is the sum of the reference station's 60 dBu protected contour and the data file station's interference contour subtracted from the distance between the stations. (All distances are derived by the method detailed in Sec. 73.208 of the Rules and Regulations as amended in Docket 80-90.) Therefore, the column is a measure of incoming interference. Negative distances in this column indicate the presence of interference. Listed antenna heights are the average heights of eight standard radials as found in the Commission's records unless otherwise noted, in which case the specific antenna heights along the azimuths between the reference station and the database station are used and visa versa. The column labeled "* OUT *" shows the distance of kilometers of overlap or clearance between the reference station's interference contour and the database station's protected contour. Negative distance figures in this column indicate outgoing interference.

Under the "BEARING" column, the first row of numbers indicate the bearings from true north of the data base stations in relationship with the reference station, while the numbers in the second row indicate the reverse bearings from the database station to the reference station.

The columns labeled "INT" and "PRO" hold the distance in kilometers of the appropriate interference contour and the protected contour of a data base station.

For I.F. relationships the "IN" and "OUT" columns change their significance. The letter "R" stands for the minimum required distance in kilometers, while the letter "M" in the next column follows the available clear space separation in kilometers or "Margin". This same procedure is used for all Canadian and Mexican spacing. Minimum separation distances were taken from Sec 73.207 of the rules as amended. Canadian separation distances were derived from the "Canadian/American Working Agreement". The first three letters of the "TYPE" column identify the current F.C.C. status of the stations. The fourth letter will be a "D" or "Z" (Sec. 73.215) if the facility is directional. The fifth letter will be an E, H or V depending on the type of antenna polarization. The sixth letter will be a "Y" if the antenna uses beam tilt.

11-13-1993

D. VERNIER/ CONSULTANT
Channel Preclusions:

319 266-8402

Minnesota Public Radio

INTERFERENCE CHECKS WITH TBA, COLLEGEVILLE, MN at N. LAT. 45 34 57 W. LNG. 94 22 54

PWR = .1 kW H.A.A.T. = 100 M C.O.R. = 448 M AMSL

Protected F(50-50) 60 dBu = 10.35 km

F(50-10) 40 dBu = 34.38 54 dBu = 14.65 80 dBu = 3.15 100 dBu = .71

CH#	CALL	TYPE	* IN *	* OUT *	BEARING	DISTANCE	LAT.	PWR(kW)	INT(km)	PRO(km)
CITY		STATE	LICENSEE		<---		LNG.	HAAT(M)	COR(M)	FILE #
CH# 201A - 88.1 MHz										
201C2	KVSC	LI	VN	-107.0	-60.8	121.9	13.85 km	45 31 00	16.50	110.48
St. Cloud		MN	St. Cloud State University	301.9		8.61 Mi	94 13 52		136.0	463
i.f. RELATIONSHIPS:										
255C2	KZPK.A	AP	CN	15.0 R	-4.7 M	260.7	10.30 km	45 34 03	47.00	5.89
Paynesville		MN	Ronald J. Linder			80.7	6.40 Mi	94 30 43	152.0	510
CH# 202A - 88.3 MHz										
201C2	KVSC	LI	VN	-57.6	-41.1	121.9	13.85 km	45 31 00	16.50	61.09
St. Cloud		MN	St. Cloud State University	301.9		8.61 Mi	94 13 52		136.0	463
205C1	KNSR	LI	CN	-3.7	-51.2	232.2	15.37 km	45 29 52	100.00	8.71
Collegeville		MN	Minnesota Public Radio			52.2	9.55 Mi	94 32 14	222.0	581
i.f. RELATIONSHIPS:										
255C2	KZPK.A	AP	CN	15.0 R	-4.7 M	260.7	10.30 km	45 34 03	47.00	5.89
Paynesville		MN	Ronald J. Linder			80.7	6.40 Mi	94 30 43	152.0	510
CH# 203A - 88.5 MHz										
201C2	KVSC	LI	VN	-10.3	-29.6	121.9	13.85 km	45 31 00	16.50	13.84
St. Cloud		MN	St. Cloud State University	301.9		8.61 Mi	94 13 52		136.0	463
205C1	KNSR	LI	CN	-24.4	-53.6	232.2	15.37 km	45 29 52	100.00	29.42
Collegeville		MN	Minnesota Public Radio			52.2	9.55 Mi	94 32 14	222.0	581
i.f. RELATIONSHIPS: NONE FOUND										
CH# 204A - 88.7 MHz										
201C2	KVSC	LI	VN	-0.7	-27.1	121.9	13.85 km	45 31 00	16.50	4.15
St. Cloud		MN	St. Cloud State University	301.9		8.61 Mi	94 13 52		136.0	463
205C1	KNSR	LI	CN	-92.2	-65.1	232.2	15.37 km	45 29 52	100.00	97.17
Collegeville		MN	Minnesota Public Radio			52.2	9.55 Mi	94 32 14	222.0	581
i.f. RELATIONSHIPS: NONE FOUND										
CH# 205A - 88.9 MHz										
205C1	KNSR	LI	CN	-159.3	-84.8	232.2	15.37 km	45 29 52	100.00	164.28
Collegeville		MN	Minnesota Public Radio			52.2	9.55 Mi	94 32 14	222.0	581
i.f. RELATIONSHIPS: NONE FOUND										
CH# 206A - 89.1 MHz										
205C1	KNSR	LI	CN	-92.2	-65.1	232.2	15.37 km	45 29 52	100.00	97.17
Collegeville		MN	Minnesota Public Radio			52.2	9.55 Mi	94 32 14	222.0	581
i.f. RELATIONSHIPS: NONE FOUND										
CH# 207A - 89.3 MHz										
205C1	KNSR	LI	CN	-24.4	-53.6	232.2	15.37 km	45 29 52	100.00	29.42
Collegeville		MN	Minnesota Public Radio			52.2	9.55 Mi	94 32 14	222.0	581

CH#	CALL	TYPE	* IN *	* OUT *	BEARING	DISTANCE	LAT.	PWR(KW)	INT(km)	PRO(km)
CITY		STATE	LICENSEE		<---		LNG.	HAAT(M)	COR(M)	FILE #
207C1	WCAL	LI CY	-32.9	41.8	134.0	143.07 km	44 41 19	100.00	165.59	66.88
Northfield		MN	St. Olaf College		314.0	88.90 Mi	93 04 22	234.0	516	BLED911203KB
i.f. RELATIONSHIPS: NONE FOUND										
CH# 208A - 89.5 MHz										
205C1	KNSR	LI CN	-3.7	-51.2	232.2	15.37 km	45 29 52	100.00	8.71	65.84
Collegeville		MN	Minnesota Public Radio		52.2	9.55 Mi	94 32 14	222.0	581	BLED880907KA
211C1	KSJRFM	LI CN	-4.4	-54.2	232.2	15.37 km	45 29 52	100.00	9.45	68.90
Collegeville		MN	Minnesota Public Radio, In		52.2	9.55 Mi	94 32 14	258.0	617	BMLED880616KA
i.f. RELATIONSHIPS: NONE FOUND										
CH# 209A - 89.7 MHz										
211C1	KSJRFM	LI CN	-26.3	-56.7	232.2	15.37 km	45 29 52	100.00	31.35	68.90
Collegeville		MN	Minnesota Public Radio, In		52.2	9.55 Mi	94 32 14	258.0	617	BMLED880616KA
i.f. RELATIONSHIPS: NONE FOUND										
CH# 210A - 89.9 MHz										
211C1	KSJRFM	LI CN	-96.0	-68.2	232.2	15.37 km	45 29 52	100.00	101.03	68.90
Collegeville		MN	Minnesota Public Radio, In		52.2	9.55 Mi	94 32 14	258.0	617	BMLED880616KA
i.f. RELATIONSHIPS: NONE FOUND										
CH# 211A - 90.1 MHz										
211C1	KSJRFM	LI CN	-162.7	-87.9	232.2	15.37 km	45 29 52	100.00	167.71	68.90
Collegeville		MN	Minnesota Public Radio, In		52.2	9.55 Mi	94 32 14	258.0	617	BMLED880616KA
i.f. RELATIONSHIPS: NONE FOUND										
CH# 212A - 90.3 MHz										
211C1	KSJRFM	LI CN	-96.0	-68.2	232.2	15.37 km	45 29 52	100.00	101.03	68.90
Collegeville		MN	Minnesota Public Radio, In		52.2	9.55 Mi	94 32 14	258.0	617	BMLED880616KA
i.f. RELATIONSHIPS: NONE FOUND										
CH# 213A - 90.5 MHz										
211C1	KSJRFM	LI CN	-26.3	-56.7	232.2	15.37 km	45 29 52	100.00	31.35	68.90
Collegeville		MN	Minnesota Public Radio, In		52.2	9.55 Mi	94 32 14	258.0	617	BMLED880616KA
213C1	KGAC	LI CN	-14.1	55.7	172.1	152.60 km	44 13 20	75.00	156.36	62.52
St. Peter		MN	Minnesota Public Radio, In		352.1	94.82 Mi	94 07 03	216.0	504	BLED850401KB
i.f. RELATIONSHIPS: NONE FOUND										
CH# 214A - 90.7 MHz										
211C1	KSJRFM	LI CN	-4.4	-54.2	232.2	15.37 km	45 29 52	100.00	9.45	68.90
Collegeville		MN	Minnesota Public Radio, In		52.2	9.55 Mi	94 32 14	258.0	617	BMLED880616KA
214C1	KBPR	LI CN	-53.1	4.8	356.2	93.57 km	46 25 21	34.00	136.36	54.41
Brainerd		MN	Minnesota Public Radio, In		176.2	58.14 Mi	94 27 41	207.0	597	BLED880222KG
i.f. RELATIONSHIPS: NONE FOUND										
CH# 215A - 90.9 MHz										
216C	KNOWFM*	LI CN	-12.2	20.3	120.7	113.29 km	45 03 44	100.00	114.18	77.10
Minneapolis-St. Paul		MN	Minnesota Public Radio, In		300.7	70.40 Mi	93 08 21	365.2*	631	BLED1154
> Reference HAAT at 120.7 degrees = 118.1 M, Pwr.= .1 kW, Pro. contour = 11.35 km, Int. contour = 15.87 km										
i.f. RELATIONSHIPS:										

CH#	CALL	TYPE	* IN *	* OUT *	BEARING	DISTANCE	LAT.	PWR(kW)	INT(km)	PRO(km)
CITY		STATE	LICENSEE		<---		LNG.	HAAT(M)	COR(M)	FILE #

NONE FOUND

CH# 216A - 91.1 MHz

216C KNOWFM LI CN -76.9 1.8 120.7 113.29 km 45 03 44 100.00 179.84 77.10
 Minneapolis-St. Paul MN Minnesota Public Radio, Inc 300.7 70.40 Mi 93 08 21 365.2* 631 BLED1154

i.f. RELATIONSHIPS: NONE FOUND

CH# 217A - 91.3 MHz

216C KNOWFM LI CN -11.2 21.5 120.7 113.29 km 45 03 44 100.00 114.18 77.10
 Minneapolis-St. Paul MN Minnesota Public Radio, Inc 300.7 70.40 Mi 93 08 21 365.2* 631 BLED1154
 217C KRSU LI CN -45.7 28.2 250.0 134.94 km 45 10 03 75.00 170.25 72.40
 Appleton MN Minnesota Public Radio, Inc 70.0 83.85 Mi 96 00 02 341.0 648 BLED891031KB
 218A KCFB LI CN -6.5 -6.7 84.4 17.93 km 45 35 54 0.80 14.11 9.96
 St. Cloud MN Fellowship Broadcasting Co 264.4 11.14 Mi 94 09 11 32.2* 357 BLED910822KA

i.f. RELATIONSHIPS: NONE FOUND

CH# 218A - 91.5 MHz

218A KCFB LI CN -26.3 -26.4 84.4 17.93 km 45 35 54 0.80 33.86 9.96
 St. Cloud MN Fellowship Broadcasting Co 264.4 11.14 Mi 94 09 11 32.2* 357 BLED910822KA

i.f. RELATIONSHIPS: NONE FOUND

CH# 219A - 91.7 MHz

218A KCFB * LI CN -7.9 -8.8 84.4 17.93 km 45 35 54 0.80 14.11 9.96
 St. Cloud MN Fellowship Broadcasting Co 264.4 11.14 Mi 94 09 11 32.2* 357 BLED910822KA
 > Reference HAAT at 84.4 degrees = 126.2 M, Pwr.= .1 kW, Pro. contour = 11.75 km, Int. contour = 16.79 km

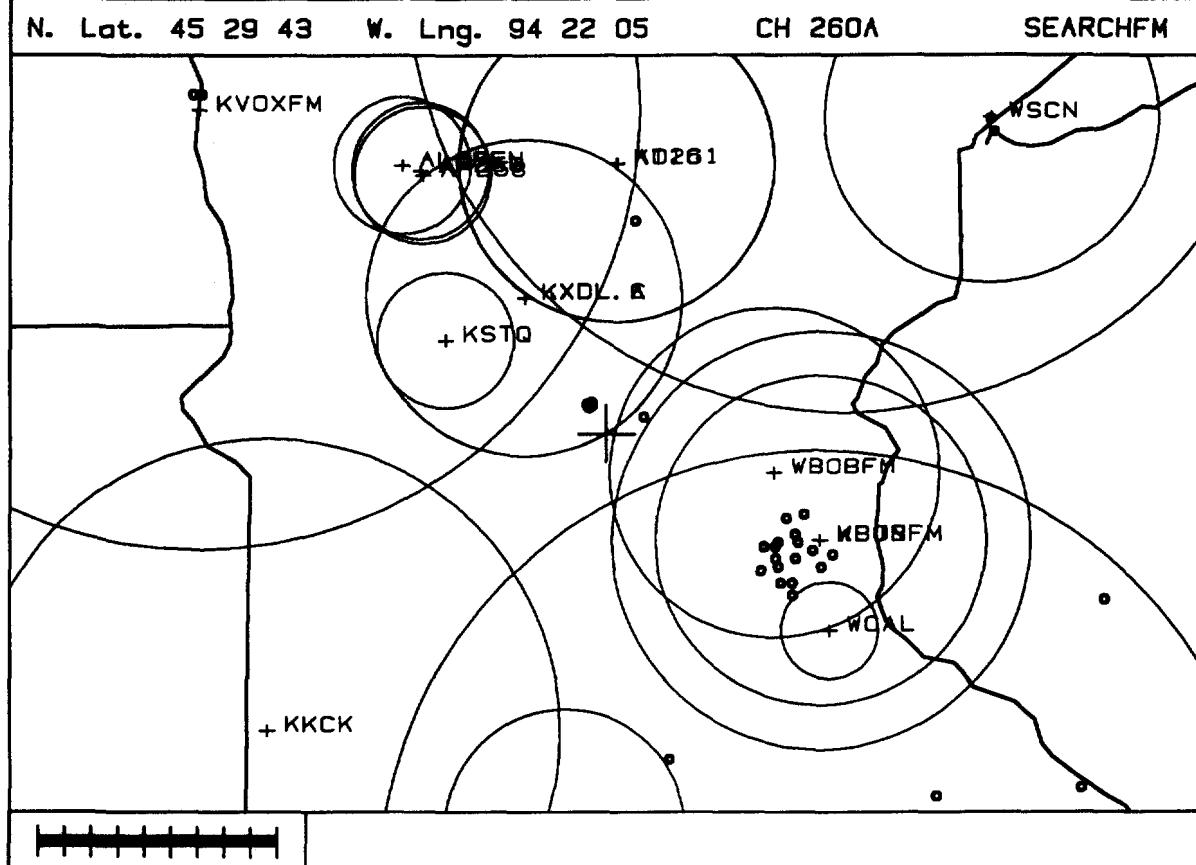
i.f. RELATIONSHIPS: NONE FOUND

CH# 220A - 91.9 MHz

220C3 AP220 AP CN -48.5 2.5 212.6 75.36 km 45 00 40 25.00 113.52 38.53
 Willmar MN Christian Heritage Broadca 32.6 46.83 Mi 94 53 56 100.0 445 BPED930804NA
 221A WYRQ LI CN 72.0 R -30.7 M 9.2 41.29 km 45 56 57 3.00 34.20 22.77
 Little Falls MN Schiel Broadcasting, Inc. 189.2 25.66 Mi 94 17 48 91.0 431 BLH800516AF

i.f. RELATIONSHIPS: NONE FOUND

* Uses actual antenna radial HAAT and power toward reference



Call	CH#	Location	D-KM	Az1	FCC	Margin	
KXDL.A	259A	Browerville	MN	72.33	329.0	72.0	0.33
KXDL.C	259A	Browerville	MN	72.45	329.0	72.0	0.45
WBOBFM	262C1	Minneapolis	MN	78.48	103.0	75.0	3.48
KSJN	258C	Minneapolis	MN	109.02	116.4	95.0	14.02
KAUSFM	260C1	Austin	MN	228.80	155.1	200.0	28.80
WBOBFM	262C1	Minneapolis	MN	109.02	116.4	75.0	34.02
WUSZ	260C1	Virginia	MN	236.09	27.4	200.0	36.09
KVOXFM	260C1	Moorhead	MN	236.55	308.5	200.0	36.55
KTIG	261A	Pequot Lakes	MN	123.05	1.9	72.0	51.05
AD261	261A	Pequot Lakes	MN	123.22	2.1	72.0	51.22
KSTQ	257A	Alexandria	MN	85.01	300.2	31.0	54.01
KKCK	259C1	Marshall	MN	204.70	228.8	133.0	71.70
AP258	258A	Perham	MN	144.65	324.5	31.0	113.65
WCAL	207C1	Northfield	MN	135.77	131.3	22.0	113.77
AP258	258A	Perham	MN	146.95	324.6	31.0	115.95
ALOPEN	258A	Perham	MN	153.77	322.6	31.0	122.77
KXAC	263C2	St. James	MN	181.02	185.9	55.0	126.02
WSCN	263C1	Cloquet	MN	225.86	50.4	75.0	150.86

• = Collegeville

12-01-1993

D. VERNIER/ CONSULTANT

319 266-8402

CH# 260A - 99.9 MHz

Channel available as directional from KSJU coordinates

INTERFERENCE CHECKS WITH TEST, COLLEGEVILLE, MN at N. LAT. 45 34 57 W. LNG. 94 22 54

PWR = 6 kW H.A.A.T. = 100 M C.O.R. = 459 M AMSL

Protected F(50-50) 60 dBu = 28.29 km

F(50-10) 40 dBu = 86.76 54 dBu = 43.29 80 dBu = 9.03 100 dBu = 2.8

F(50-10) 37 dBu = 98.22 51 dBu = 51.45 77 dBu = 10.85 97 dBu = 3.27

F(50-10) 34 dBu = 112.49 48 dBu = 59.67 74 dBu = 12.96 94 dBu = 3.94

CH#	CALL	TYPE	* IN *	* OUT *	BEARING	DISTANCE	LAT.	PWR(kW)	INT(km)	PRO(km)	
CITY		STATE	LICENSEE		<---		LNG.	HAAT(M)	COR(M)	FILE #	
258C	KSJN	LI	CN	51.9	32.1	120.6	114.52 km	45 03 30	100.00	34.30	73.42
Minneapolis		MN	Minnesota Public Radio		300.6	71.16 Mi	93 07 27		315.0	593	BLH910814KH
259A	KXDL.A*	AP	CN	0.4	7.4	325.4	63.59 km	46 03 12	6.00	44.62	28.88
Browerville		MN	Prairie Broadcasting Compa	145.4	39.51	45.4 Mi	94 50 47		104.5*	508	BPH930806IH
> Reference HAAT at 325.4 degrees = 99.3 M, Pwr.= 1 kW, Pro. contour = 18.53 km, Int. contour = 27.28 km											
259A	KXDL.C*	CP	CN	0.3	6.7	325.4	63.70 km	46 03 15	6.00	44.02	28.48
Browerville		MN	Prairie Broadcasting Compa	145.4	39.58	45.4 Mi	94 50 50		101.4*	505	BPH860813HU
> Reference HAAT at 325.4 degrees = 99.3 M, Pwr.= 1.2 kW, Pro. contour = 19.42 km, Int. contour = 28.55 km											
260C1	WUSZ	LI	CN	41.5	80.0	28.7	227.98 km	47 22 52	100.00	158.21	61.24
Virginia		MN	Virginia Broadcasting Co.		208.7	141.66 Mi	92 57 18		173.0	605	BLH880418KB
260C1	KAUSFM	LI	CN	39.8	80.3	155.8	238.04 km	43 37 42	100.00	169.98	70.96
Austin		MN	Orion Broadcasting Company		335.8	147.91 Mi	93 09 12		283.0	660	BLH4037
261A	AD261	AD		42.0	42.0	2.8	113.58 km	46 36 11	6.00	43.29	28.29
Pequot Lakes		MN	Minnesota Christian Broadc	182.8	70.58	45.4 Mi	94 18 33		100.0	0	RM8344
FCC Comment > PRM-Canadian concurrence required											
261A	KTIG	LI	CN	43.9	43.1	2.6	113.40 km	46 36 06	6.00	41.20	26.97
Pequot Lakes		MN	Minnesota Christian Broadc	182.6	70.46	45.4 Mi	94 18 55		91.0	478	BLH900703KB
FCC Comment > *To Channel 274C2 per D92-102											
Class B1 with respect to Canada											
262C1	WBOPFM	CP	CY	53.7	34.7	120.6	114.52 km	45 03 30	100.00	32.49	70.80
Minneapolis		MN	Radio 100 Limited Partners		300.6	71.16 Mi	93 07 27		281.0	559	BPH921221IC
FCC Comment > Petition for Recon. of Grant 930514											
262C1	WBOPFM	LI	CY	21.6	2.7	109.4	82.15 km	45 20 12	100.00	32.24	70.38
Minneapolis		MN	Radio 100 Limited Partners		289.4	51.05 Mi	93 23 28		276.0	555	BLED900705KC

i.f. RELATIONSHIPS: NONE FOUND

* Uses actual antenna radial HAAT and power toward reference

HOW TO READ THE FM COMPUTER PRINT-OUT

The computer print-out should be self-explanatory for the most part. The parameters of the station being checked, (reference station) are printed in the heading. The 60 dBu protected contour is predicted from the Commission's F(50-50) table, while the 40, 54, 80 and 100 dBu contours are interference contours derived from the Commission's F(50-10) table. Contour distances are in kilometers and are predicted using spline interpolation from data points identical to those published in Report No. RS 76-01 by Gary C. Kalagian. Critical contour distances are determined using the Commission's TVFMINT FORTRAN subroutine. When interference contour distances are less than 16 kilometers the F(50-50) tables are used. If signal contour distances are less than 1.6 km the free-space equation is used.

The column listed "* IN *" is the sum of the reference station's 60 dBu protected contour and the data file station's interference contour subtracted from the distance between the stations. (All distances are derived by the method detailed in Sec. 73.208 of the Rules and Regulations as amended in Docket 80-90.) Therefore, the column is a measure of incoming interference. Negative distances in this column indicate the presence of interference. Listed antenna heights are the average heights of eight standard radials as found in the Commission's records unless otherwise noted, in which case the specific antenna heights along the azimuths between the reference station and the database station are used and visa versa. The column labeled "* OUT *" shows the distance of kilometers of overlap or clearance between the reference station's interference contour and the database station's protected contour. Negative distance figures in this column indicate outgoing interference.

Under the "BEARING" column, the first row of numbers indicate the bearings from true north of the data base stations in relationship with the reference station, while the numbers in the second row indicate the reverse bearings from the database station to the reference station.

The columns labeled "INT" and "PRO" hold the distance in kilometers of the appropriate interference contour and the protected contour of a data base station.

For I.F. relationships the "IN" and "OUT" columns change their significance. The letter "R" stands for the minimum required distance in kilometers, while the letter "M" in the next column follows the available clear space separation in kilometers or "Margin". This same procedure is used for all Canadian and Mexican spacing. Minimum separation distances were taken from Sec 73.207 of the rules as amended. Canadian separation distances were derived from the "Canadian/American Working Agreement". The first three letters of the "TYPE" column identify the current F.C.C. status of the stations. The fourth letter will be a "D" or "Z" (Sec. 73.215) if the facility is directional. The fifth letter will be an E, H or V depending on the type of antenna polarization. The sixth letter will be a "Y" if the antenna uses beam tilt.

DOUG VERNIER BROADCAST CONSULTANT
1600 PICTURESQUE DR. CEDAR FALLS IA. 50613

Minnesota Public Radio - for
St. John's College

REFERENCE		DISPLAY DATES
45 36 00 N	Class A Preclusions	DATA 10-28-93
94 28 32 W	Current Spacings	SEARCH 11-30-93
----- Channel 260 - 99.9 MHz -----		

Call	Channel	Location	Dist	Azi	FCC	Margin

--- Channel 221 92.1 MHz. ---						
WYRQ LI 221A	Little Falls	MN	41.23	19.7	115.0	-73.77
AP220 AP 220C3	Willmar	MN	73.39	206.9	89.0	-15.61
KCFB LI 218A	St. Cloud	MN	25.16	90.4	31.0	-5.84
KXRAFM LI 222C3	Alexandria	MN	83.96	296.1	89.0	-5.04
--- Channel 222 92.3 MHz. ---						
KXRAFM LI 222C3	Alexandria	MN	83.96	296.1	142.0	-58.04
KQRSFM LI 223C	Golden Valley	MN	121.85	119.6	165.0	-43.15
KKJM.C CP 225C3	St. Joseph	MN	10.72	52.8	42.0	-31.28
WYRQ LI 221A	Little Falls	MN	41.23	19.7	72.0	-30.77
AP225 AP 225C3	St. Joseph	MN	13.04	51.3	42.0	-28.96
--- Channel 223 92.5 MHz. ---						
KQRSFM LI 223C	Golden Valley	MN	121.85	119.6	226.0	-104.15
KKJM.C CP 225C3	St. Joseph	MN	10.72	52.8	42.0	-31.28
AP225 AP 225C3	St. Joseph	MN	13.04	51.3	42.0	-28.96
KXRAFM LI 222C3	Alexandria	MN	83.96	296.1	89.0	-5.04
--- Channel 224 92.7 MHz. ---						
KKJM.C CP 225C3	St. Joseph	MN	10.72	52.8	89.0	-78.28
AP225 AP 225C3	St. Joseph	MN	13.04	51.3	89.0	-75.96
KQRSFM LI 223C	Golden Valley	MN	121.85	119.6	165.0	-43.15
--- Channel 225 92.9 MHz. ---						
KKJM.C CP 225C3	St. Joseph	MN	10.72	52.8	142.0	-131.28
AP225 AP 225C3	St. Joseph	MN	13.04	51.3	142.0	-128.96
--- Channel 226 93.1 MHz. ---						
KKJM.C CP 225C3	St. Joseph	MN	10.72	52.8	89.0	-78.28
AP225 AP 225C3	St. Joseph	MN	13.04	51.3	89.0	-75.96
KXLP LI 226C1	New Ulm	MN	165.06	172.1	200.0	-34.94
KZPX.C CPM 227C1	Nisswa	MN	120.13	2.1	133.0	-12.87
--- Channel 227 93.3 MHz. ---						
KZPX.C CPM 227C1	Nisswa	MN	120.13	2.1	200.0	-79.87
KKJM.C CP 225C3	St. Joseph	MN	10.72	52.8	42.0	-31.28

Call	Channel	Location		Dist	Azi	FCC	Margin
AP225	AP 225C3	St. Joseph	MN	13.04	51.3	42.0	-28.96
--- Channel 228 93.5 MHz. ---							
KRXXFM	LI 229C	Minneapolis	MN	121.85	119.6	165.0	-43.15
KKJM.C	CP 225C3	St. Joseph	MN	10.72	52.8	42.0	-31.28
AP225	AP 225C3	St. Joseph	MN	13.04	51.3	42.0	-28.96
KSCRFM	LI 228A	Benson	MN	90.66	249.8	115.0	-24.34
KRXXFM	CP 229C1	Minneapolis	MN	117.13	126.3	133.0	-15.87
KZPX.C	CPM 227C1	Nisswa	MN	120.13	2.1	133.0	-12.87
--- Channel 229 93.7 MHz. ---							
KRXXFM	LI 229C	Minneapolis	MN	121.85	119.6	226.0	-104.15
KRXXFM	CP 229C1	Minneapolis	MN	117.13	126.3	200.0	-82.87
--- Channel 230 93.9 MHz. ---							
KRXXFM	LI 229C	Minneapolis	MN	121.85	119.6	165.0	-43.15
KFML	LI 231A	Little Falls	MN	46.39	14.3	72.0	-25.61
KCLDFM	LI 284C	St. Cloud	MN	4.59	218.1	29.0	-24.41
KRXXFM	CP 229C1	Minneapolis	MN	117.13	126.3	133.0	-15.87
KYRS	LI 231A	Atwater	MN	62.51	200.6	72.0	-9.49
--- Channel 231 94.1 MHz. ---							
KFML	LI 231A	Little Falls	MN	46.39	14.3	115.0	-68.61
KYRS	LI 231A	Atwater	MN	62.51	200.6	115.0	-52.49
KCLDFM	LI 284C	St. Cloud	MN	4.59	218.1	29.0	-24.41
KMSR	LI 232A	Sauk Centre	MN	50.52	283.8	72.0	-21.48
--- Channel 232 94.3 MHz. ---							
KMSR	LI 232A	Sauk Centre	MN	50.52	283.8	115.0	-64.48
KSTPFM	LI 233C	St. Paul	MN	120.58	119.7	165.0	-44.42
KMXK	LI 235C2	Cold Spring	MN	22.85	169.2	55.0	-32.15
KFML	LI 231A	Little Falls	MN	46.39	14.3	72.0	-25.61
ALOPEN	AL 232C3	Aitkin	MN	128.00	29.3	142.0	-14.00
KYRS	LI 231A	Atwater	MN	62.51	200.6	72.0	-9.49
KEZZ	LI 232A	Aitkin	MN	114.98	25.3	115.0	-0.02
--- Channel 233 94.5 MHz. ---							
KSTPFM	LI 233C	St. Paul	MN	120.58	119.7	226.0	-105.42
KMXK	LI 235C2	Cold Spring	MN	22.85	169.2	55.0	-32.15
KMSR	LI 232A	Sauk Centre	MN	50.52	283.8	72.0	-21.48
--- Channel 234 94.7 MHz. ---							
KMXK	LI 235C2	Cold Spring	MN	22.85	169.2	106.0	-83.15
AD234	AD 234C3	Staples	MN	95.51	337.1	142.0	-46.49
KSTPFM	LI 233C	St. Paul	MN	120.58	119.7	165.0	-44.42
DE234	DE 234A	Staples	MN	87.69	344.3	115.0	-27.31

Call		Channel	Location		Dist	Azi	FCC	Margin
KKSR	LI	244C2	Sartell	MN	32.45	55.0	106.0	-73.55
KJJKFM	LI	243C1	Fergus Falls	MN	136.95	301.6	200.0	-63.05
--- Channel 244 96.7 MHz. ---								
KKSR	LI	244C2	Sartell	MN	32.45	55.0	166.0	-133.55
--- Channel 245 96.9 MHz. ---								
KKSR	LI	244C2	Sartell	MN	32.45	55.0	106.0	-73.55
KTCZFM	LI	246C	Minneapolis	MN	121.85	119.6	165.0	-43.15
--- Channel 246 97.1 MHz. ---								
KTCZFM	LI	246C	Minneapolis	MN	121.85	119.6	226.0	-104.15
KKSR	LI	244C2	Sartell	MN	32.45	55.0	55.0	-22.55
AP247	AP	247C2	Starbuck	MN	83.95	261.3	106.0	-22.05
AP247	AP	247C2	Starbuck	MN	84.24	264.7	106.0	-21.76
ALOPEN	AL	247C2	Starbuck	MN	85.59	267.2	106.0	-20.41
--- Channel 247 97.3 MHz. ---								
AP247	AP	247C2	Starbuck	MN	83.95	261.3	166.0	-82.05
AP247	AP	247C2	Starbuck	MN	84.24	264.7	166.0	-81.76
ALOPEN	AL	247C2	Starbuck	MN	85.59	267.2	166.0	-80.41
KTCZFM	LI	246C	Minneapolis	MN	121.85	119.6	165.0	-43.15
KKSR	LI	244C2	Sartell	MN	32.45	55.0	55.0	-22.55
--- Channel 248 97.5 MHz. ---								
WWJO	LI	251C	St. Cloud	MN	42.27	55.7	95.0	-52.73
KDKK.C	CP	248C1	Park Rapids	MN	153.21	344.5	200.0	-46.79
KDKK	LI	248C1	Park Rapids	MN	153.21	344.5	200.0	-46.79
AP247	AP	247C2	Starbuck	MN	83.95	261.3	106.0	-22.05
AP247	AP	247C2	Starbuck	MN	84.24	264.7	106.0	-21.76
ALOPEN	AL	247C2	Starbuck	MN	85.59	267.2	106.0	-20.41
KLGRFM	CP	249C1	Redwood Falls	MN	128.35	203.8	133.0	-4.65
--- Channel 249 97.7 MHz. ---								
KLGRFM	CP	249C1	Redwood Falls	MN	128.35	203.8	200.0	-71.65
WWJO	LI	251C	St. Cloud	MN	42.27	55.7	95.0	-52.73
--- Channel 250 97.9 MHz. ---								
WWJO	LI	251C	St. Cloud	MN	42.27	55.7	165.0	-122.73
KLGRFM	CP	249C1	Redwood Falls	MN	128.35	203.8	133.0	-4.65
--- Channel 251 98.1 MHz. ---								
WWJO	LI	251C	St. Cloud	MN	42.27	55.7	226.0	-183.73

Call	Channel	Location		Dist	Azi	FCC	Margin
<hr/>							
--- Channel 252 98.3 MHz. ---							
WWJO LI 251C	St. Cloud	MN	42.27	55.7	165.0	-122.73	
KZPK.A AP 255C2	Paynesville	MN	4.59	218.1	55.0	-50.41	
KTISFM LI 253C	Minneapolis	MN	121.85	119.6	165.0	-43.15	
KZPK.C CP 255C2	Paynesville	MN	24.12	168.3	55.0	-30.88	
--- Channel 253 98.5 MHz. ---							
KTISFM LI 253C	Minneapolis	MN	121.85	119.6	226.0	-104.15	
WWJO LI 251C	St. Cloud	MN	42.27	55.7	95.0	-52.73	
KZPK.A AP 255C2	Paynesville	MN	4.59	218.1	55.0	-50.41	
KZPK.C CP 255C2	Paynesville	MN	24.12	168.3	55.0	-30.88	
--- Channel 254 98.7 MHz. ---							
KZPK.A AP 255C2	Paynesville	MN	4.59	218.1	106.0	-101.41	
KZPK.C CP 255C2	Paynesville	MN	24.12	168.3	106.0	-81.88	
WWJO LI 251C	St. Cloud	MN	42.27	55.7	95.0	-52.73	
KTISFM LI 253C	Minneapolis	MN	121.85	119.6	165.0	-43.15	
KISD.C CP 254C	Pipestone	MN	222.18	211.6	226.0	-3.82	
--- Channel 255 98.9 MHz. ---							
KZPK.A AP 255C2	Paynesville	MN	4.59	218.1	166.0	-161.41	
KZPK.C CP 255C2	Paynesville	MN	24.12	168.3	166.0	-141.88	
--- Channel 256 99.1 MHz. ---							
KZPK.A AP 255C2	Paynesville	MN	4.59	218.1	106.0	-101.41	
KZPK.C CP 255C2	Paynesville	MN	24.12	168.3	106.0	-81.88	
ALOPEN AL 256C1	Walker	MN	182.34	349.3	200.0	-17.66	
KEEZFM LI 256C1	Mankato	MN	184.85	178.4	200.0	-15.15	
--- Channel 257 99.3 MHz. ---							
KZPK.A AP 255C2	Paynesville	MN	4.59	218.1	55.0	-50.41	
KSJN LI 258C	Minneapolis	MN	121.85	119.6	165.0	-43.15	
KSTQ LI 257A	Alexandria	MN	72.09	295.6	115.0	-42.91	
KZPK.C CP 255C2	Paynesville	MN	24.12	168.3	55.0	-30.88	
--- Channel 258 99.5 MHz. ---							
KSJN LI 258C	Minneapolis	MN	121.85	119.6	226.0	-104.15	
KZPK.A AP 255C2	Paynesville	MN	4.59	218.1	55.0	-50.41	
KZPK.C CP 255C2	Paynesville	MN	24.12	168.3	55.0	-30.88	
KXDL.A AP 259A	Browerville	MN	58.05	330.2	72.0	-13.95	
KXDL.C CP 259A	Browerville	MN	58.16	330.2	72.0	-13.84	
KNSR LI 205C1	Collegeville	MN	12.34	203.0	22.0	-9.66	
--- Channel 259 99.7 MHz. ---							
KXDL.A AP 259A	Browerville	MN	58.05	330.2	115.0	-56.95	
KXDL.C CP 259A	Browerville	MN	58.16	330.2	115.0	-56.84	

Call	Channel	Location		Dist	Azi	FCC	Margin
KSJN LI 258C	Minneapolis	MN	121.85	119.6	165.0	-43.15	
KNSR LI 205C1	Collegeville	MN	12.34	203.0	22.0	-9.66	
--- Channel 260 99.9 MHz. ---							
KXDL.A AP 259A	Browerville	MN	58.05	330.2	72.0	-13.95	
KXDL.C CP 259A	Browerville	MN	58.16	330.2	72.0	-13.84	
--- Channel 261 100.1 MHz. ---							
WBOBFM LI 262C1	Minneapolis	MN	89.72	109.0	133.0	-43.28	
KIKVFM LI 264C1	Alexandria	MN	52.43	280.3	75.0	-22.57	
WBOBFM CP 262C1	Minneapolis	MN	121.85	119.6	133.0	-11.15	
KTIG LI 261A	Pequot Lakes	MN	112.03	6.4	115.0	-2.97	
AD261 AD 261A	Pequot Lakes	MN	112.23	6.6	115.0	-2.77	
--- Channel 262 100.3 MHz. ---							
WBOBFM LI 262C1	Minneapolis	MN	89.72	109.0	200.0	-110.28	
WBOBFM CP 262C1	Minneapolis	MN	121.85	119.6	200.0	-78.15	
KIKVFM LI 264C1	Alexandria	MN	52.43	280.3	75.0	-22.57	
--- Channel 263 100.5 MHz. ---							
KIKVFM LI 264C1	Alexandria	MN	52.43	280.3	133.0	-80.57	
WBOBFM LI 262C1	Minneapolis	MN	89.72	109.0	133.0	-43.28	
WBOBFM CP 262C1	Minneapolis	MN	121.85	119.6	133.0	-11.15	
--- Channel 264 100.7 MHz. ---							
KIKVFM LI 264C1	Alexandria	MN	52.43	280.3	200.0	-147.57	
KSJRFM LI 211C1	Collegeville	MN	12.34	203.0	22.0	-9.66	
--- Channel 265 100.9 MHz. ---							
KIKVFM LI 264C1	Alexandria	MN	52.43	280.3	133.0	-80.57	
KSJRFM LI 211C1	Collegeville	MN	12.34	203.0	22.0	-9.66	
--- Channel 266 101.1 MHz. ---							
KDWBFM LI 267C	Richfield	MN	121.85	119.6	165.0	-43.15	
KIKVFM LI 264C1	Alexandria	MN	52.43	280.3	75.0	-22.57	
WHMHFM LI 269A	Sauk Rapids	MN	24.86	90.9	31.0	-6.14	
WHMHFM CP 269A	Sauk Rapids	MN	24.86	90.9	31.0	-6.14	
KBHP LI 266C1	Bemidji	MN	199.40	351.0	200.0	-0.60	
--- Channel 267 101.3 MHz. ---							
KDWBFM LI 267C	Richfield	MN	121.85	119.6	226.0	-104.15	
KIKVFM LI 264C1	Alexandria	MN	52.43	280.3	75.0	-22.57	
WHMHFM CP 269A	Sauk Rapids	MN	24.86	90.9	31.0	-6.14	
WHMHFM LI 269A	Sauk Rapids	MN	24.86	90.9	31.0	-6.14	

Call	Channel	Location		Dist	Azi	FCC	Margin
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WLTE LI 275C	Minneapolis		MN	121.85	119.6	165.0	-43.15
KLZZ.C CPM 279A	Waite Park		MN	17.88	110.7	31.0	-13.12
KLZZ.A AP 279C3	Waite Park		MN	29.15	115.7	42.0	-12.85
KLZZ.C CP 279C3	Waite Park		MN	29.45	116.0	42.0	-12.55
KQIC LI 273C1	Willmar		MN	65.56	226.6	75.0	-9.44
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--- Channel 277 103.3 MHz. ---							
KZCR LI 277C1	Fergus Falls		MN	164.63	305.9	200.0	-35.37
KLZZ.C CPM 279A	Waite Park		MN	17.88	110.7	31.0	-13.12
KLZZ.A AP 279C3	Waite Park		MN	29.15	115.7	42.0	-12.85
KLZZ.C CP 279C3	Waite Park		MN	29.45	116.0	42.0	-12.55
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--- Channel 278 103.5 MHz. ---							
KLZZ.A AP 279C3	Waite Park		MN	29.15	115.7	89.0	-59.85
KLZZ.C CP 279C3	Waite Park		MN	29.45	116.0	89.0	-59.55
KLZZ.C CPM 279A	Waite Park		MN	17.88	110.7	72.0	-54.12
KYSMFM LI 278C1	Mankato		MN	162.36	167.8	200.0	-37.64
KYSMFM CP 278C1	Mankato		MN	162.36	167.8	200.0	-37.64
KYSMFM AP 278C1	Mankato		MN	162.36	167.8	200.0	-37.64
KABD.A AP 278A	Brainerd		MN	84.68	16.0	115.0	-30.32
KABD.C CP 278A	Brainerd		MN	85.45	13.2	115.0	-29.55
KKJM.C CP 225C3	St. Joseph		MN	10.72	52.8	12.0	-1.28
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--- Channel 279 103.7 MHz. ---							
KLZZ.A AP 279C3	Waite Park		MN	29.15	115.7	142.0	-112.85
KLZZ.C CP 279C3	Waite Park		MN	29.45	116.0	142.0	-112.55
KLZZ.C CPM 279A	Waite Park		MN	17.88	110.7	115.0	-97.12
KBHL.C CP 280A	Osakis		MN	55.38	298.8	72.0	-16.62
KBHL LI 280A	Osakis		MN	55.38	298.8	72.0	-16.62
KKJM.C CP 225C3	St. Joseph		MN	10.72	52.8	12.0	-1.28
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--- Channel 280 103.9 MHz. ---							
KLZZ.A AP 279C3	Waite Park		MN	29.15	115.7	89.0	-59.85
KBHL LI 280A	Osakis		MN	55.38	298.8	115.0	-59.62
KBHL.C CP 280A	Osakis		MN	55.38	298.8	115.0	-59.62
KLZZ.C CP 279C3	Waite Park		MN	29.45	116.0	89.0	-59.55
KLZZ.C CPM 279A	Waite Park		MN	17.88	110.7	72.0	-54.12
KJJOFM LI 281C	St. Louis Park		MN	149.00	111.6	165.0	-16.00
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--- Channel 281 104.1 MHz. ---							
KCLDFM LI 284C	St. Cloud		MN	4.59	218.1	95.0	-90.41
KJJOFM LI 281C	St. Louis Park		MN	149.00	111.6	226.0	-77.00
KBHL.C CP 280A	Osakis		MN	55.38	298.8	72.0	-16.62
KBHL LI 280A	Osakis		MN	55.38	298.8	72.0	-16.62
KLZZ.C CPM 279A	Waite Park		MN	17.88	110.7	31.0	-13.12
KLZZ.A AP 279C3	Waite Park		MN	29.15	115.7	42.0	-12.85
KLZZ.C CP 279C3	Waite Park		MN	29.45	116.0	42.0	-12.55
KOYH.C CP 281C2	Pelican Rapids		MN	159.77	308.7	166.0	-6.23

Call	Channel	Location		Dist	Azi	FCC	Margin
--- Channel 282 104.3 MHz. ---							
KCLDFM LI 284C	St. Cloud	MN	4.59	218.1	95.0	-90.41	
KLKS.C CP 282C2	Breezy Point	MN	112.90	8.9	166.0	-53.10	
KLKS LI 282C2	Breezy Point	MN	112.90	8.9	166.0	-53.10	
KJJOFM LI 281C	St. Louis Park	MN	149.00	111.6	165.0	-16.00	
KLZZ.C CPM 279A	Waite Park	MN	17.88	110.7	31.0	-13.12	
KLZZ.A AP 279C3	Waite Park	MN	29.15	115.7	42.0	-12.85	
KLZZ.C CP 279C3	Waite Park	MN	29.45	116.0	42.0	-12.55	
--- Channel 283 104.5 MHz. ---							
KCLDFM LI 284C	St. Cloud	MN	4.59	218.1	165.0	-160.41	
--- Channel 284 104.7 MHz. ---							
KCLDFM LI 284C	St. Cloud	MN	4.59	218.1	226.0	-221.41	
--- Channel 285 104.9 MHz. ---							
KCLDFM LI 284C	St. Cloud	MN	4.59	218.1	165.0	-160.41	
KASMFM CP 288A	Albany	MN	10.31	289.8	31.0	-20.69	
KASMFM AP 288A	Albany	MN	10.31	289.8	31.0	-20.69	
--- Channel 286 105.1 MHz. ---							
KCLDFM LI 284C	St. Cloud	MN	4.59	218.1	95.0	-90.41	
KASMFM AP 288A	Albany	MN	10.31	289.8	31.0	-20.69	
KASMFM CP 288A	Albany	MN	10.31	289.8	31.0	-20.69	
KLTA LI 286C1	Breckenridge	MN	196.73	302.3	200.0	-3.27	
--- Channel 287 105.3 MHz. ---							
KCLDFM LI 284C	St. Cloud	MN	4.59	218.1	95.0	-90.41	
KASMFM CP 288A	Albany	MN	10.31	289.8	72.0	-61.69	
KASMFM AP 288A	Albany	MN	10.31	289.8	72.0	-61.69	
WLOL LI 287C3	Cambridge	MN	98.36	91.4	142.0	-43.64	
--- Channel 288 105.5 MHz. ---							
KASMFM CP 288A	Albany	MN	10.31	289.8	115.0	-104.69	
KASMFM AP 288A	Albany	MN	10.31	289.8	115.0	-104.69	
--- Channel 289 105.7 MHz. ---							
KASMFM AP 288A	Albany	MN	10.31	289.8	72.0	-61.69	
KASMFM CP 288A	Albany	MN	10.31	289.8	72.0	-61.69	
KKWS LI 290C1	Wadena	MN	115.92	343.5	133.0	-17.08	
KCFE LI 289A	Eden Prairie	MN	114.65	132.9	115.0	-0.35	
--- Channel 290 105.9 MHz. ---							
KKWS LI 290C1	Wadena	MN	115.92	343.5	200.0	-84.08	

Call	Channel	Location		Dist	Azi	FCC	Margin
WQPMFM LI	291C2	Princeton	MN	64.63	111.9	106.0	-41.37
KASMF M CP	288A	Albany	MN	10.31	289.8	31.0	-20.69
KASMF M AP	288A	Albany	MN	10.31	289.8	31.0	-20.69
--- Channel 291 106.1 MHz. ---							
WQPMFM LI	291C2	Princeton	MN	64.63	111.9	166.0	-101.37
KASMF M AP	288A	Albany	MN	10.31	289.8	31.0	-20.69
KASMF M CP	288A	Albany	MN	10.31	289.8	31.0	-20.69
KKWS LI	290C1	Wadena	MN	115.92	343.5	133.0	-17.08
--- Channel 292 106.3 MHz. ---							
WQPMFM LI	291C2	Princeton	MN	64.63	111.9	106.0	-41.37
--- Channel 293 106.5 MHz. ---							
WJJYFM LI	294C1	Brainerd	MN	94.01	4.4	133.0	-38.99
--- Channel 294 106.7 MHz. ---							
WJJYFM LI	294C1	Brainerd	MN	94.01	4.4	200.0	-105.99
--- Channel 295 106.9 MHz. ---							
WJJYFM LI	294C1	Brainerd	MN	94.01	4.4	133.0	-38.99
KMGK LI	296A	Glenwood	MN	71.44	271.3	72.0	-0.56
KMGK.A AP	296A	Glenwood	MN	71.44	271.3	72.0	-0.56
--- Channel 296 107.1 MHz. ---							
KMGK LI	296A	Glenwood	MN	71.44	271.3	115.0	-43.56
KMGK.A AP	296A	Glenwood	MN	71.44	271.3	115.0	-43.56
KKJR LI	296A	Hutchinson	MN	77.53	173.6	115.0	-37.47
--- Channel 297 107.3 MHz. ---							
KLIZFM LI	298C1	Brainerd	MN	84.68	16.0	133.0	-48.32
KQQL LI	300C	Anoka	MN	89.72	109.0	95.0	-5.28
KQQLFM AP	300C	Anoka	MN	89.72	109.0	95.0	-5.28
KMGK LI	296A	Glenwood	MN	71.44	271.3	72.0	-0.56
KMGK.A AP	296A	Glenwood	MN	71.44	271.3	72.0	-0.56
--- Channel 298 107.5 MHz. ---							
KLIZFM LI	298C1	Brainerd	MN	84.68	16.0	200.0	-115.32
KQQLFM AP	300C	Anoka	MN	89.72	109.0	95.0	-5.28
KQQL LI	300C	Anoka	MN	89.72	109.0	95.0	-5.28
--- Channel 299 107.7 MHz. ---							
KQQL LI	300C	Anoka	MN	89.72	109.0	165.0	-75.28
KQQLFM AP	300C	Anoka	MN	89.72	109.0	165.0	-75.28